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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,768	03/07/2002	Dieter Kress	2147.GLE.PT	8295

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EXAMINER

WALSH, BRIAN D

ART UNIT PAPER NUMBER

3722

DATE MAILED: 01/29/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/092,768

Applicant(s)

KRESS ET AL.

Examiner

Brian D. Walsh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-14, 16-22 and 24-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-14, 16-22 and 24-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/7/02 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **FINAL ACTION**

### ***Drawings***

1. The objections to the drawings have been withdrawn in view of Applicant's amendment. However, the Examiner notes the new rejection to the drawings, as necessitated by amendment.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "plane transecting the central axis" from claim 29 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

3. The prior rejections based on 35 USC 112, second paragraph have been withdrawn in view of Applicant's amendment. However, the Examiner has noted the new rejection to claim 22 under second paragraph, as necessitated by amendment.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 22, the Examiner notes the following phrase: "...said arched projection extends circumferentially from said blade plate a distance of about 90 (degrees) about said axis of said base body." It is unclear how the projection (understood to be element 39, best shown in figure 3) can extend from the blade plate. The projection is understood to extend from the circumferential surface (17). Claim 22 will be examined as best understood.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9, 13, 14, 16 – 22, 24 and 26 – 29 are finally rejected, as necessitated by amendment, under 35 U.S.C. 103(a) as being unpatentable over Kautto et al. (U.S. Pat. No. 6,332,385)(hereinafter Kautto) in view of Sorice (U.S. Pat. No. 3,887,974).

Regarding claim 9, Kautto discloses a tool holder (10') and insert (12') of triangular shape. It is clear in figure 1A and 2A that the holder includes a clamp with an edge that extends parallel to an inner side opposite the cutting edge. Kautto fails to disclose a continuous, linear groove extending parallel to the inner side to be engaged by the clamp.

Regarding claims 9 and 26, Sorice discloses a holder (10) and cutting insert (18) similar to the instant invention comprising a continuous, linear groove (24) that extends from one side of the insert to the opposite side.

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Regarding claims 13 and 24, Kautto and Sorice disclose the elements as set forth above. As well, Sorice discloses the groove (24) is located in close proximity to the cutter.

Regarding claim 14, both Kautto and Sorice disclose cutting edges on cutting inserts that are curved and have a defined radius of curvature.

Regarding claims 16 and 27, Kautto discloses a clamping element that has a distal end that lies entirely within an incircle of the triangular cutting insert (see figure 1A).

Regarding claims 17 and 28, it is clear in figure 1A that Kautto discloses a clamping element that has two non-parallel lateral surfaces oriented at an acute angle to one another.

Regarding claims 18 and 20, Kautto and Sorice disclose the elements as set forth above. As well, and referring to figure 1 of Sorice, Sorice discloses a radially extending arched portion (generally at 14) located in proximity to the cutting insert which supports the cutting insert.

Regarding claim 19, Kautto shows a holder (11') that appears in figure 1 to be both integral and unitary in construction.

Regarding claim 21, Sorice teaches a shim (34) spaced between the projection and the cutting insert.

Regarding claim 29, Sorice teaches in figure 2 that the cutter extends radially from the base and is oriented at an acute angle with respect to a plane transecting the central axis of the tool.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the holder and insert of Kautto so as to provide a groove in the area the holder clamps the insert that extends across the triangular shape as taught by Sorice

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since Sorice teaches the continuous groove in order to provide a clamping mechanism that provides an extremely firm clamp on a cutting insert (col. 1, lines 57 – 61).

6. Claims 10, 11 and 25 are finally rejected, as necessitated by amendment, under 35 U.S.C. 103(a) as being unpatentable over Kautto in view of Sorice in view of Minshall.

Regarding claims 10, 11 and 20 Kautto and Sorice disclose all of the elements as set forth in the above rejections, however, Kautto, as modified by Sorice, fails to specifically set forth the dimensional characteristics regarding the transverse groove in the top surface of the cutting insert.

Minshall discloses a cutting insert (21) including a groove (32) on the top (31) of the insert that has angle of approximately  $10^{\circ}$ . Please refer to figure 4.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the groove in the cutting insert of Kautto, as modified by Sorice, to have an angle of about  $10^{\circ}$  as taught by Minshall since Minshall inherently teaches the use of this angle to provide a surface to engage a clamping arrangement in order retain the insert within the tool.

7. Claims 12, 29 and 30 are finally rejected, as necessitated by amendment, under 35 U.S.C. 103(a) as being unpatentable over Kautto in view of Sorice in view of Hopkins (U.S. Pat. No. 3,868,752)

Regarding claim 12 Kautto and Sorice disclose all of the elements as set forth in the above rejections, however, Kautto, as modified by Sorice, fails to teach that the base body has at least a portion that is cylindrical and that the cutting insert extends with a radial rake angle between 4 and 8 degrees with respect a plane transecting the central axis of the tool

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Hopkins teaches a cutting tool similar to the instant invention comprising a body (12) with cylindrical portions and a triangular insert (28) held in a clamping arrangement in the same manner and orientation as Kautto and the instant invention. Hopkins teaches a range of acute radial rake angles including 4 – 8 degrees (col. 3, lines 5 – 14 and the table in column 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cutter taught by Kautto, as modified by Sorice, to include the rake angle as taught by Hopkins since Hopkins teaches the radial rake angle in order provide machining accuracy and increased tool life (col. 1, lines 10 – 35).

#### *Response to Arguments*

8. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection, as necessitated by amendment.

#### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Salcumbe (U.S. Pat. No. 3,597,104) discloses a cutting tool with a cylindrical body and an insert held in an orientation similar to the instant invention.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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11. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

**Faxing of Responses to Office Actions (UPDATED)**

12. In order to reduce pendency and avoid potential delays, TC 3700 is encouraging **FAXing** of responses to **ALL OFFICE ACTIONS** directly into the Group at **(703) 872-9306**. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the Examiner and art unit at the top of your cover sheet. Papers submitted via **FAX** into TC 3700 will be promptly forwarded to the Examiner.

**PLEASE NOTE: the fax number in the above paragraph has changed.** It is to be used for all responses, **including after-final communications.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Walsh whose telephone number is (703) 605-0638. The examiner can normally be reached on Monday - Friday 8:30 A.M. to 6:00 P.M., with every-other Friday off.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (703) 308-2159.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.



BDW

January 25, 2004



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